

**CENTRAL REGIONAL LABORATORY**  
Data Checklist

Data Set AIR 20020067 Cheshire Monitoring Study  
Suspended Particles

- ☒ Chain of Custody
- ☒ Analysis Request Form(s)\*
- ☐ Sample Tags
- ☒ Transmittal Report w/signatures of the following:
  - Analyst(s)
  - Environmental Data Coordinator

\*Analysis Request Forms provide the data user a means to connect sample numbers with sampling locations.

Prepared by: Sylvia Griffin 6-3-02  
Environmental Data Coordinator



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 CENTRAL REGIONAL LABORATORY

536 SOUTH CLARK STREET

CHICAGO, ILLINOIS 60605

Date: JUN 03 2002

Subject: Review of Region 5 Data for CHESHIRE MONITORING STUDY

From: Edgar Santiago, Chemist *FAA for ES*  
Region 5 Central Regional Laboratory

To:

Attached are the results for: CHESHIRE MONITORING STUDY

CRL data set number: 20020067

Samples analyzed for: **Suspended Particles**

Results are reported for sample designations: 2002AH44D01, 2002AH44S01, 2002AH44S02, and 2002AH44S03.

Data Management Coordinator and Date Received

Please have the U.S. EPA Project Manager/Officer complete the Customer Satisfaction Survey, attached, or call the CRL Sample Coordinator at 3-1226.

Sylvia Griffin  
Data Management Coordinator  
Region 5 Central Regional Laboratory  
ML-10C

Comments:

ENVIRONMENTAL PROTECTION AGENCY  
Office of Enforcement

CHAIN OF CUSTODY RECORD

REGION 5  
77 West Jackson Boulevard  
Chicago, Illinois 60604

PROJ. NO. 02AH44		PROJECT NAME Cheshire Monitoring Study				NO. OF CON- TAINERS	<div style="text-align: right;">Activity Code: <del>42345</del> 90101A</div> <div style="text-align: center; font-size: 2em;">AIR 20020067</div>												
SAMPLERS: (Print Name and Sign) Mike Murphy <i>Mike Murphy</i> <i>Mike Murphy</i>																			
STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION													TAG NUMBERS	
DO1	4/20	00:00	X		GHS	1												5-340200 1 to 1	
S03	4/20	00:00	X		ADDAVILLE	1												5-340202 1 to 1	
SO1	4/20	00:00	X		GHS	1												5-340199 1 to 1	
SO2	4/20	00:00	X		RVHS	1												5-340201 1 to 1	
																		GHS #3012, Pstg Avg = 19.8	
																		GHS #3013, Pstg Avg = 19.4	
																		RVHS, Pstg Avg = 19.6	
																		Addaville, Pstg Avg = 19.75	
Relinquished by: (Signature) <i>M.J. Murphy</i>			Date / Time 4/20/02 11:47		Received by: (Signature) <i>William Sings</i>			Ship To:											
Relinquished by: (Signature)			Date / Time		Received by: (Signature)														
Relinquished by: (Signature)			Date / Time		Received for Laboratory by: (Signature) <i>William Sings</i>			Date / Time 5/15/02 14:31		ATTN:									
										Airbill Number UPS #12 401 19901 4089 3181									
										Chain of Custody Seal Numbers									



Project No. 02AH44 Project Name CHESHIRE MONITORING STUDY 90101A  
 AIR 20020067 ARRIVAL DATE: 5/15/2002 DUE DATE: 6/5/2002

Sampler Mike Murphy

Cooler ID 02AH441 Page 5-140050

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH44DO1	DO1	20/04/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340200 1 to 1

Bottle No. 1  
 Parameter PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH44S03	S03	20/04/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	ADDAVILLE	1	5-340202 1 to 1

Bottle No. 1  
 Parameter PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH44SO1	SO1	20/04/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	GHS	1	5-340199 1 to 1

Bottle No. 1  
 Parameter PM10

Sample Id:	Station	Date / Time	Grab / Comp	Station Location	No Bottles	Tag Numbers
02AH44SO2	SO2	20/04/2002 00:00:00	<input type="radio"/> Grab <input checked="" type="radio"/> Com	RVHS	1	5-340201 1 to 1

Bottle No. 1  
 Parameter PM10

## CRL Data Review Qualification Codes

QUALIFIER	DESCRIPTION
<b>B</b>	This flag is used when the analyte is found in the associated <u>B</u> lank as well as the sample. It indicates possible blank contamination and warns the user to take appropriate action while assessing the data. See the case narrative for a discussion of common lab contaminants and/or the relative concentration of contamination in the samples and blanks for relevance.
<b>J</b>	This flag is used when the analyte is <u>estimated</u> due to quality control limit(s) being exceeded. This flag accompanies all GC/MS tentatively identified compounds (TICs). This flag also applies to a suspected, unidentified interference. This flag is placed on affected detected results as well as non-detected (i.e., "U" flagged) results. ( <u>J</u> is the flag used in the Superfund CLP SOW and Data Review Functional Guidelines and is used by CRL for consistency.)
<b>M</b>	This flag is used when the analyte is confirmed to be qualitatively present in the sample, extract or digestate, with a quantity at or above the CRL <u>M</u> ethod Detection Limit (MDL) but below the lowest concentration of the calibration curve. This flag indicates the quantitated value is <u>estimated</u> since it falls below the lowest calibration standard in the calibration curve.
<b>N</b>	This flag applies to GC/MS <u>T</u> entatively Identified Compounds (TICs) that have a mass spectral library match.
<b>Q</b>	This flag applies to analyte data that are severely estimated due to quality control and/or <u>Q</u> uantitation problems, but are confirmed to be qualitatively present in the sample. <u>No value is reported with this qualification flag.</u>
<b>R</b>	This flag applies to analyte data that are <u>R</u> ejected and unusable due to severe quality control, quantitation and/or qualitative identification problems. No other qualification flags are reported for this analyte. <u>No value is reported with this qualification flag.</u>
<b>U</b>	This flag is used when the analyte was analyzed for but <u>U</u> ndetected in the sample. The CRL RL for the analyte accompanies this flag. When the customer requests CRL to report below our RL down to our MDL, undetected analytes are reported with a "U" code and the MDL. As with sample results that are positive, the value is corrected for dry weight, dilution and/or sample weight or volume.

03/07/01

ENVIRONMENTAL PROTECTION AGENCY  
REGION V  
CENTRAL REGIONAL LABORATORY  
FINAL RESULT REPORT FOR THE TEAM: ANALYTICAL AND INORGANIC (A&I)

DIVISION/BRANCH: AIR DIVISION SAMPLING DATE: 04/20/2002 LAB ARRIVAL DATE: 05/15/2002 DUE DATE: 06/05/2002  
DU NUMBER: 20101A DATA SET NUMBER: 20020067 STUDY: CHESHIRE MONITORING STUDY PRIORITY: 1 LABORATORY : CRL

SAMPLE #	CRL LOG NUMBER	SAMPLE DESCRIPTION	SUSPENDED PARTICLE (g/filter)			
1	2002AH44D01	GUIDING HANDS SCHOOL	0.0263			
2	2002AH44S01	GUIDING HANDS SCHOOL	0.0291			
3	2002AH44S02	RVHS	0.0293			
4	2002AH44S03	ADDAVILLE	0.0302			
DATE OF ANALYSIS			05/21- 22/2002			
ANALYST			E.S			

Reviewed by: FRA Date: 5/31/02

CRL SOP: HK015	Date: 07 January 2000	Revision No: 1
Data review for the Analytical and Inorganic Group		Page 1 of 1

# ATTACHMENT II

## CRL Analytical and Inorganics Data Review Checklist

Batch Number: 20020067 Facility: CHESHIRE MONITORING  
 Parameter: PM10 CRL.SOP: AIG 047

Package Overview:	YES	NO
Raw Data Package Complete?	✓	
Results Reported Correctly?	✓	
Special Requests Done?	N/A	
Calculations Checked?	✓	
Calibration Not Exceeded?	N/A	
Manual Peak Integration performed? Circle one IC or GC and Check	N/A	
Field QC Checked?	N/A	
Quality Control:		
Holding Times Met?	N/A	
Preservation Checked?	N/A	
Proper Digestion Verified?	N/A	
Initial Instrument Performance Checks Verified?	✓	
Calibration Verification Checked?	N/A	
Sample-Specific QC (Internal Standards or Analytical Spikes) Okay?	N/A	
Matrix QC Checked?	N/A	
Digestion Blanks Checked?	N/A	
Spiked Blank Checked?	N/A	
LCS (if applicable) Checked?	N/A	
QCS (if applicable) Checked?	N/A	
Final Check		
Technical Review Done?	✓	
Narrative Complete?	✓	

Analyst: E.S. Peer Reviewer: BAH

Date: 5/22/02 Date: 5/31/02

Comments Attached? (Y/N) N

Data Set Number:	20020067	Parameter:	Suspended Particles
Facility Name:	CHESHIRE MONITORING STUDY		
Study Name:	CHESHIRE MONITORING STUDY		
Date of Narrative:	05/22/2002	Analyst:	ES
		Signature:	E.S.

### ANALYSIS CASE NARRATIVE

Four (4) exposed filters were received for suspended particle analysis at the Central Regional Laboratory (CRL) on May 15, 2002. Those filters were fractions of clean filters, prepared at the CRL and sent to the field for exposure. Filter identification numbers and other pertinent information obtained from the individual filters and packaging envelopes are presented in the table below.

Filters ID	Samples ID	Tag Number
Q6279984	2002AH44D01	5-340200
Q6279985	2002AH44S01	5-340199
Q6279995	2002AH44S02	5-340201
Q6280020	2002AH44S03	5-340202

Filter equilibrations and final weighting of exposed filters were performed according to CRL.SOP AIG047. Analysis of exposed filters began on 05/21/2002 and was completed on 05/22/2002. All exposed filters were in good conditions. No sampler sn number was provided for filters Q6279995 and Q6280020 (CRL sample I.D number 2002AH44S02 and 2002AH44S03).

### QUALITY CONTROL (QC):

Analysis results were evaluated using the QC requirements of CRL.SOP AIG047. All the required quality control criteria for the laboratory, method, and system performance audits were evaluated and determined to be within the limits.

### SAMPLE RESULTS:

All the sample results are acceptable for use.

### ELECTRONIC DATA:

No electronic data.

# CHESHIRE AIR MONITORING PROJECT

## PM10

Parameter: Suspended Particles

Data Set Numbers: 20020066- 20020070

Date of Analysis 05/21-22/2002

Analyst: ES

### BALANCE VERIFICATION:

Standard Weights	Balanced weight	Differences
Actual (g)	Balanced (g)	(g)
Limit +/-0.0005 g		
1.0000	1.0000	0.0000
2.0000	2.0001	-0.0001
5.0000	4.9999	0.0001

### QC-SUMMARY FOR EXPOSED FILTERS

Filter ID	CRL Sample	Analysis	ANALYST	Exposed
Number	I.D Number	Date		weight (g)
Q6279991	2002AH47S01	05/22/02	Analyst 1	4.3634
Q6279991	2002AH47S01	05/22/02	Analyst 2	4.3638
Differences (Limit +/- 5 mg).....				-0.0004
Q6279983	2002AH45S03	05/22/02	Analyst 1	4.3910
Q6279983	2002AH45S03	05/22/02	Analyst 2	4.3914
Differences (Limit +/- 5 mg).....				-0.0004

**CHESHIRE AIR MONITORING PROJECT**  
**PM10**

Filter ID	CRL Sample	Sampling	Station	Sampler	Pstg	P1/Pa	Total	Pre Weight	Exposed	Weight	PM10
Number	I.D Number	Date	Location	SN	Avg		Volume (M^3)	of filters (g)	weight (g)	Gain	(UG/M^3)
<b>Data set Number 20020067</b>											
Q6279984	2002AH44D01	04/20/02	Guiding Hands School	3013	19.40		0.00	4.3310	4.3573	0.0263	ERR
Q6279985	2002AH44S01	04/20/02	Guiding Hands School	3012	19.80		0.00	4.3759	4.4050	0.0291	ERR
Q6279995	2002AH44S02	04/20/02	RVHS		19.60		0.00	4.3364	4.3657	0.0293	ERR
Q6280020	2002AH44S03	04/20/02	Addaville		19.75		0.00	4.3540	4.3842	0.0302	ERR

## General information

## Standard weights, actual (g)

## Balanced weights, balanced (g)

General information	Standard weights, actual (g)	Balanced weights, balanced (g)
METTLER	0.5 0.1000	0.1000
AG 285	0.2000	0.2000
S/N 1120181840	0.5000	0.5000

mettler 050802	0.1000	0.0999
AG 285 KS	0.5000	0.4999
1120181846	2.0000	2.0000
	5.0000	5.0000
	10.0000	9.9999

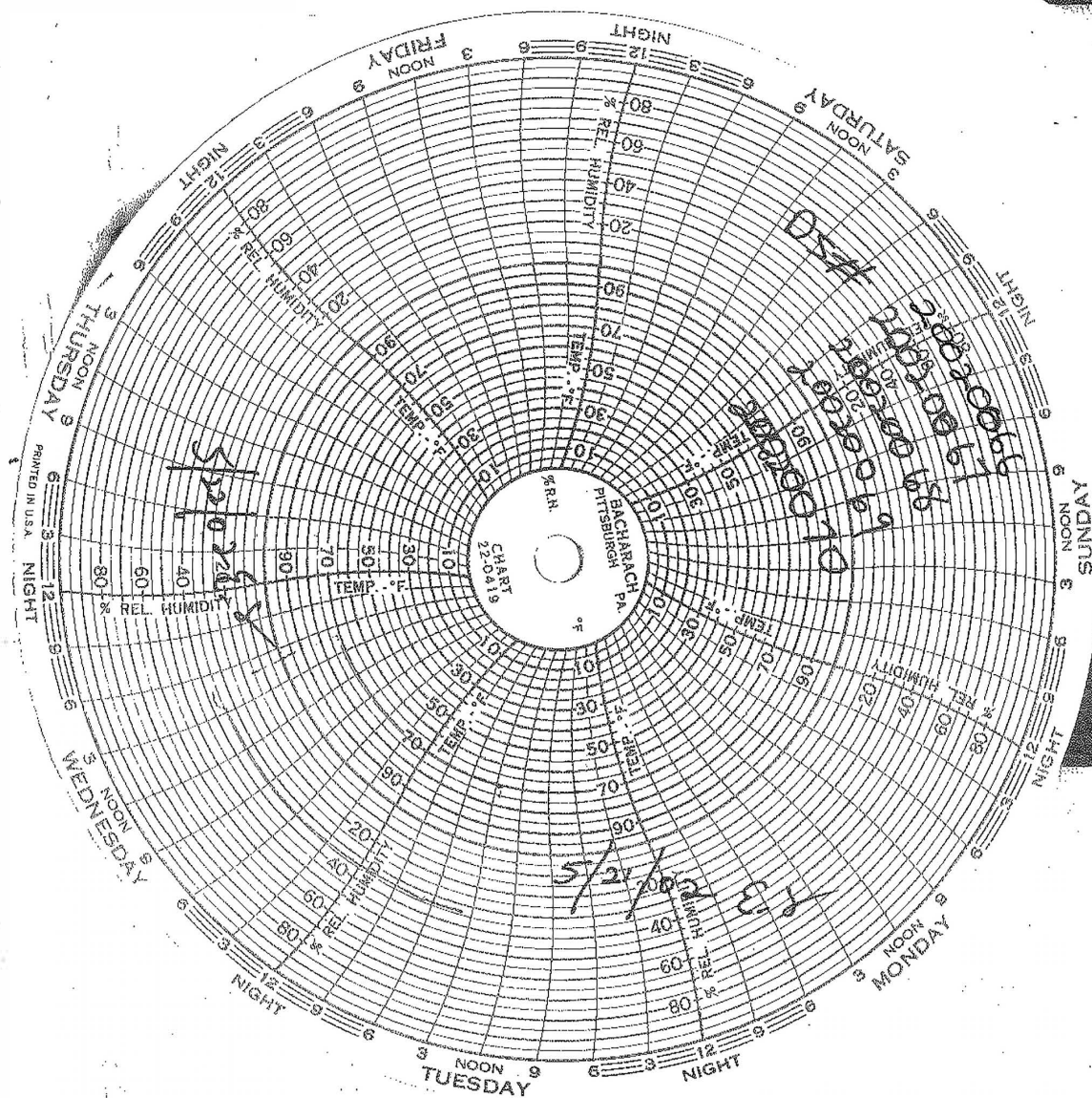
SAR TORUS	(mg) 1500+200+200+100	1.0000	1.0000
#37010119		2.0000	2.0001
5/22/02 C.8		5.0000	4.9999



TS	FILTER I.D	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
	Q6280011	4.3826				
	Q6280012	4.3890				
	Q6280013	4.3380				
	Q6280014	4.3649				
	Q6280015	4.3751		4.3914		
	Q6280016	4.3537				
	Q6280017	4.3607		4.3787		
	Q6280018	4.4018		4.4190		
	Q6280019	4.3867		4.4090		
	Q6280020	4.3570		4.3842		
	<del>Q6279995</del>	4.3364		4.3657	4.66 4.3662 run 5/22/02	
	Q6279994	4.3793		4.4136		
	Q6279993	4.3950		4.4275		
	Q6279992	4.3634		4.3964		
	Q6279991	4.3423		4.3634	4.3638	
	Q6279990	4.3693		4.3900		
	Q6279989	4.3586		4.3915		
	Q6279988	4.3651		4.4019		
	Q6279987	4.3899		4.4205		
	Q6279986	4.3982		4.4304		
	Q6279985	4.3759		4.4050		
	Q6279984	4.3310		4.3573		
	Q6279983	4.3607		4.3910	4.3914	run
	Q6279982	4.3609		4.3952		

IS	FILTER I.D.	TARE wt (g)	DUP wt (g)	EXPOSED wt (g)	EXPOSED wt DUP (g)	COMMENTS
1/2	Q8609578	4.3518		4.3696		
	Q8609577	4.4047				
	Q8609576	4.4045				
L	Q8609575	4.4086				
	Q8609574	4.3944				
	Q8609573	4.3820				
	Q8609572	4.3980	4.3983			
	Q8609571	4.4116				
	Q8609570	4.3708				
	Q8609569	4.3923				
	Q8609568	4.3413				
	Q8609567	4.3699				
	Q8609566	4.3652				
	Q8609565	4.3893				
	Q8609564	4.3782				
	Q8609563	4.3914				
	Q8609562	4.4055				
	Q8609561	4.4050				
	Q8609560	4.3683	4.3687			
	Q8609559	4.3343				
	Q8609558	4.3507				
	Q8609557	4.3532				
	Q8609556	4.3494				
	Q8609555	4.3580				





US EPA Region 5 Field Sample



5-340200-1

Parameters PM10

*Am 2000067*

Preservative None S M M D B D

Sample ID 02AH4DO1 X

Sampler *Mike Murphy*

Date *4-20-02*

AIRS

PM-10 ☒

OPERATOR *ORPH*

DATE *4-20-02*

TSP

SITE *CHS 3613* *06279584*

AVG. RECORDER RESP. *19.4*

TEMP

°C

K

FINAL WT

g

ELAPSED TIME *1440*

MINUTES

PRESS

mmHg

INITIAL WT

g

FLOW

m<sup>3</sup>/min

TOTAL FLOW

m<sup>3</sup>

SAMPLE WT

g

STD

ACTUAL

PM-10

ug/m<sup>3</sup>

COMMENTS:



COMMENTS:

NOV 10 1991 AIRS  
SITE 6423012 06275385  
MG. RECORDER RESP. 17.8 TEMP °C K FINAL WT g  
APSED TIME 1440 MINUTES PRESS mmHg INITIAL WT g  
OW m³/min TOTAL FLOW m³ SAMPLE WT g  
ID ACTUAL PM-10 ug/m³

US EPA Region 5 Field Sample

5-340199-1

Parameters PM10

AIR 2000067

Preservative None S M MD B D  
Sample ID 02AH4501 X  
Sampler Mike Murphy  
Date 4-20-02

OPERATOR CTPM DATE 4-20-02



5-340201-1

## Parameters and PM10

Apr 2002 vol 7

Preservative None S M M B D

Sample ID	02AH44SO2	X
02AH44SO2		

**Sampler** Mike Murdock

Date 4-20-02



OPERATOR OTK 104

DATE 4-20-03

SITE KUHP 00217775

VC: Recorder Resp: 17.4

TEMP \_\_\_\_\_ °C \_\_\_\_\_ K FINAL WT \_\_\_\_\_ g

EXPENSE TIME 1446 MINUTES

PHESS: \_\_\_\_\_ nmhg INITIAL W1 \_\_\_\_\_

LOW

11/11/11

TOTAL FLOW \_\_\_\_\_ IN SAMPLE W/ \_\_\_\_\_

ID _____	ACTUAL _____
----------	--------------

01-11-10

© 2001



US EPA Region 5 Field Sample



5-340202-1

Parameters PM10

*LA 200202067*

Preservative	None	S	M	MD	B	D
Sample ID	02AH44S03	X				
Sampler	<i>Mike Murphy</i>					
Date	<i>4-20-02</i>					

AIRS

PM-10

OPERATOR *DEPA*

DATE *4-20-02*

TSP

SITE *CP 6280020 - Appleville*

AVG. RECORDER RESP.

*1975*

TEMP

°C

K

FINAL WT

g

ELAPSED TIME

*1440*

MINUTES

PRESS

mmHg

INITIAL WT

g

FLOW

m<sup>3</sup>/min

TOTAL FLOW

m<sup>3</sup>

SAMPLE WT

g

STD

ACTUAL

PM-10

ug/m<sup>3</sup>

COMMENTS: